

IN THE CLAIMS:

- 1-21. (Cancelled)
22. (Currently amended) A method for fabricating a steel article having more than about 0.5 weight percent aluminum, comprising the steps of
providing an iron-base alloy; thereafter
vacuum melting the alloy to form a melt, while reducing a free oxygen content of the melt to less than about 10 parts per million by weight; thereafter
adding calcium to the melt; and thereafter
casting the melt to form a casting having more than about 0.5 weight percent aluminum.
23. (Previously presented) The method of claim 22, wherein the step of providing includes the step of
providing the iron-base alloy having less than about 0.5 weight percent aluminum.
24. (Previously presented) The method of claim 22, wherein the step of providing includes the step of
providing the iron-base alloy having more than about 0.3 weight percent carbon.
25. (Previously presented) The method of claim 22, wherein the step of vacuum melting includes the step of
reducing the oxygen content of the melt by reacting the free oxygen with carbon.
26. (Previously presented) The method of claim 22, wherein the step of adding calcium includes the step of
adding calcium to the melt in an amount sufficient to react with all of the free oxygen in the melt
27. (Previously presented) The method of claim 22, wherein the method includes a step of
adding aluminum to the melt to increase the aluminum content of the melt to more than about 0.5 weight percent aluminum, and wherein the step of adding calcium includes the step of adding calcium prior to the step of adding aluminum.

28. (Previously presented) The method of claim 22, wherein the method includes a step of

adding aluminum to the melt to increase the aluminum content of the melt to more than about 0.5 weight percent aluminum, and wherein the step of adding calcium includes the step of adding calcium concurrently with the step of adding aluminum.

29. (Previously presented) The method of claim 22, wherein the method includes a step of

adding aluminum to the melt to increase the aluminum content of the melt to more than about 0.5 weight percent aluminum, and wherein the step of adding calcium includes the step of adding calcium after the step of adding aluminum.

30. (Previously presented) The method of claim 22, wherein the method includes a step of

adding aluminum to the melt to increase the aluminum content of the melt to more than about 0.5 weight percent aluminum, and wherein the step of adding calcium includes the steps of adding a first calcium addition prior to the step of adding aluminum, adding a second calcium concurrently with the step of adding aluminum, and adding a third calcium addition after the step of adding aluminum.

31. (Previously presented) The method of claim 22, wherein the step of casting includes the step of

casting the melt to form the casting having from about 0.5 to about 1.3 weight percent aluminum.

32. (Currently amended) The method of ~~claim 1~~ claim 22, including an additional step, after the step of casting, of

mechanically working the casting.

33. (Currently amended) The method of ~~claim 1~~ claim 22, including an additional step, after the step of casting, of

mechanically working the casting to form a shaft.

34. (Previously presented) A method for fabricating a steel article, comprising the steps of

providing an iron-base alloy having less than about 0.5 weight percent aluminum; thereafter

vacuum melting the alloy to form a melt; thereafter

adding aluminum to the melt to increase the aluminum content of the melt to from about 0.5 to about 1.3 weight percent aluminum;

adding calcium to the melt; and thereafter

casting the melt to form a casting.

35. (Previously presented) The method of claim 34, wherein the step of vacuum melting includes the step of

reducing a free oxygen content of the melt to less than about 10 parts per million by weight.